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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,860	09/12/2003	Brian D. Honkala	MOT-CS22682RL	8768

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5000 W. TILGHMAN STREET
SUITE 153
ALLENTOWN, PA 18104

EXAMINER

SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,860

Applicant(s)

HONKALA ET AL.

Examiner

Stephen G. Sherman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed the 27 April 2006.

Claims 1-24 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1-6, 8-13, 15, 17-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spence et al. (US 6,488,425) in view of Miyashita (US 6,909,906) and further in view of Ditzik (US 5,983,073).

Regarding claim 1, Spence et al. disclose a keypad module for a portable communication device including a plurality of keys (Figure 2, items 18) and housing having a left side, a right side, a front side (Figure 2, item 12), the keypad comprising:

a keypad inlay having a left side and a right side (Figure 2, item 22);

means for securing the keypad inlay to the front side of the housing (Column 4, lines 56-67. The examiner interprets that since the bezel 22 can be attached to the housing in any manner that this would include means for securing the keypad inlay.);
and

means for releasing the keypad inlay from the housing (Column 4, lines 56-67. The examiner interprets that since the bezel 22 is removable to allow for cleaning that the housing would contain a means for releasing the bezel.).

Spence et al. fail to teach of a keypad comprising means for releasing the keypad inlay that enables the keypad inlay to be removed from the housing by depressing a key, although Spence et al. do teach that the bezel could be attached in any manner such that it could be removed manually and without tools.

Miyashita discloses of a keypad comprising means for releasing the keypad inlay that enables the keypad inlay to be removed from the housing by depressing a key (Figures 1 and 2 and column 7, lines 18-26. The examiner interprets that when the locking mechanism 111 is depressed that the operation unit 105 can be removed from the main telephone body 102.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the releasing mechanism taught by Miyashita with the keypad module taught by Spence et al. in order to allow for the detachability of the keypad inlay from the housing to allow the device to be cleaned which it is exposed to dust, dirt, or other adverse environmental conditions.

Spence et al. and Miyashita fail to teach a keypad comprising means for releasing the keypad inlay that enables the keypad inlay to be removed from the housing by simultaneously depressing at least two of the plurality of keys.

Ditzik discloses means for releasing a keypad that enables the keypad to be removed from the housing by simultaneously depressing at least two of the plurality of keys (Figure 1 and column 3, line 50 to column 4, line 17 explains that the keypad section 16 is made to be removed from the display section 2 by simultaneously depressing two buttons 5 on the side of the structure.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the keypad releasing means taught by the combination of Spence et al. and Miyashita be released by depressing two buttons as

taught by Ditzik instead of the one button in order to avoid accidental disassembly of the keypad.

Regarding claim 2, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 1.

Ditzik also discloses wherein each of the at least two of the plurality of keys actuates an electronic switch when depressed (Column 7, lines 14-24 explain that the connections made at buttons 5 may include electrical wires for the connecting sections, meaning that when the buttons are pressed to disconnect the sections an electric switch is actuated to release the electrical connection.).

Regarding claim 3, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 1.

Miyashita also discloses wherein the means for securing the keypad inlay to front side of the housing comprises a first latch that engages a first catch (Figure 2 and column 7, lines 18-26. The examiner interprets that item 111 is a latch which engages a catch, item 126.).

Regarding claim 4, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 3.

Miyashita also discloses wherein the means for releasing the keypad inlay from the housing comprises disengaging the first latch from the first catch by depressing a

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first key of the plurality of keys (Figure 2 and column 7, lines 18-26. The examiner interprets that pressing item 111, releases the latch from the catch.).

Regarding claim 5, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 4.

Spence et al., Miyashita and Ditzik fail to teach wherein the means for securing the keypad inlay to front side of the housing comprises a second latch that engages a second catch.

However, since Miyashita et al. discloses of one catch for one button and Ditzik discloses of having multiple buttons, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made that each of the buttons taught by Ditzik would have the same latch configuration as taught by Miyashita et al.

Regarding claim 6, this claim is rejected under the same rationale as claim 4.

Regarding claim 8, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 6.

Miyashita also discloses wherein the latch is located on the keypad inlay and the catch is located on the housing (Figure 2 and column 7, lines 18-26. The examiner interprets that item 126, the catch, is located on the housing and item 111, the latch, is located on the inlay.).

Regarding claim 9, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 1.

Ditzik also discloses wherein the at least two of the plurality of keys comprises a left side button located on either the left side of the housing or the left side of the keypad inlay and a right side button on either the right side of the housing or right side of the keypad inlay and the means for releasing the keypad inlay from the housing comprises simultaneously depressing the left and right side buttons (Figure 1 and column 3, line 50 to column 4, line 17 explains that the keypad section 16 is made to be removed from the display section 2 by simultaneously depressing two buttons 5 on each side of the structure, meaning that there is a button 5 on the left and right sides of the keypad for releasing the keypad from the display section.).

Regarding claim 10, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 9.

Miyashita also discloses wherein the means for releasing the keypad inlay from the housing comprises depressing the button using an off-center keystroke on the button (Figure 2, item 111. The examiner interprets that hitting the release button anywhere, including off-center, will result in the releasing of the keypad.).

Regarding claim 11, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 9.

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Miyashita also discloses wherein the means for securing the keypad inlay to the housing comprises an arm that engages a catch (Figure 2 and column 7, lines 18-26. The examiner interprets that item 111 is an arm which engages a catch, item 126.).

Regarding claim 12, this claim is rejected under the same rationale as claim 4.

Regarding claim 13, this claim is rejected under the same rationale as claim 10.

Regarding claim 15, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 1.

Miyashita also discloses wherein the key is located on the keypad inlay (Figure 2, item 111 is located on item 105.).

Regarding claim 17, please refer to the rejection of claims 1 and 3-6.

Regarding claim 18, this claim is rejected under the same rationale as claim 2.

Regarding claim 19, this claim is rejected under the same rationale as claim 9.

Regarding claim 20, this claim is rejected under the same rationale as claim 13.

Regarding claim 21, this claim is rejected under the same rationale as claim 17.

Regarding claim 22, this claim is rejected under the same rationale as claim 1.

Regarding claim 24, this claim is rejected under the same rationale as claim 17.

Regarding claim 25, this claim is rejected under the same rationale as claim 10.

6. Claims 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spence et al. (US 6,488,425) in view of Miyashita (US 6,909,906) and further in view of Ditzik (US 5,983,073) and Helin et al. (US 6,055,439).

Regarding claim 7, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 6.

Spence et al., Miyashita and Ditzik fail to teach wherein a first key comprises a send key and a second key comprises an end key.

Helin et al. disclose a mobile telephone interface that includes a keypad wherein the keys located on the keypad can provide multiple functions, such as a send key and an end key (Column 4, lines 28-64.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the teachings of Helin et al. that the keys on the keypad can be used for different functions available on the device with the keypad module taught by the combination of Spence et al., Miyashita and Ditzik such that the

two buttons depressed would be a send and an end key in order to simplify the telephone by reducing the number of keys/buttons.

Regarding claim 23, this claim is rejected under the same rationale as claim 7.

7. Claims 14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spence et al. (US 6,488,425) in view of Miyashita (US 6,909,906) and further in view of Ditzik (US 5,983,073) and Mark et al. (US 2002/0082042).

Regarding claim 14, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 1.

Spence et al., Miyashita and Ditzik fail to teach of a keypad module wherein the means for securing the keypad inlay to the front side of the housing are not visible when the keypad inlay is attached to the housing.

Mark et al. disclose a keypad module wherein the means for securing the keypad inlay to the front side of the housing are not visible when the keypad inlay is attached to the housing (Figure 2, items 24 and paragraph [0020]. The examiner interprets that the engagement mechanism 24 is not visible when the surface 10 is connected to surface 20.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the engagement mechanism taught by Mark et al.

with the keypad module taught by the combination of Spence et al., Miyashita and Ditzik in order to provide an improved keypad arrangement for a mobile station.

Regarding claim 16, Spence et al., Miyashita and Ditzik disclose the keypad module of claim 1.

Spence et al., Miyashita and Ditzik fail to teach wherein the at least two of the plurality of keys are built into the housing.

Mark et al. disclose wherein the at least two of the plurality of keys are built into the housing (Paragraph [0020]. The examiner interprets that since it is stated that the arrangement could be reversed between the removable member and the housing, that when combined with the keypad module taught by Spence et al., Miyashita and Ditzik that the keys could be built into the housing.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to build the keys, as taught by Mark et al., into the housing of the keypad module taught by the combination of Spence et al., Miyashita and Ditzik in order to provide an improved keypad arrangement for a mobile station.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chadha (US 2004/0259587) discloses a modular wireless telephone with a removable keypad.

Nixon (US 6,111,760) discloses a wireless device with cover overlaid and attached using a snap fit.

Ishibashi et al. (US 2004/0043799) disclose a cellular phone with a removable keypad.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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3 May 2006

AMR A. AWAD
PRIMARY EXAMINER
